e-Manifest System
Webinar #2

Alternatives Analysis for e-Manifest

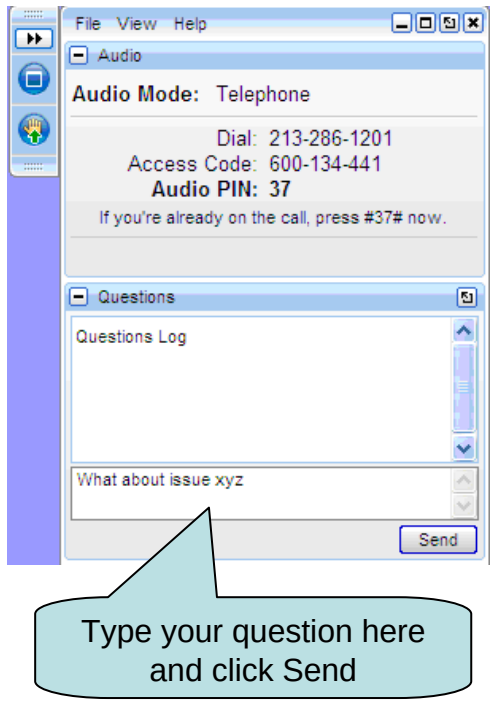
May 12, 2009
1:00PM - 3:00PM EDT

Agenda

- Introduction
- Webinar Schedule
- Alternatives Analysis
- Next Webinar

Introduction

- Facilitator: Steve Ziegler
- Roll call
- Second of four scheduled webinars on e-Manifest
- Ground Rules
  - After roll call, lines will be muted until the discussion period starts.
  - Type in your questions and we'll review them at the Q&A period
- To help facilitate an orderly discussion, please send a typed question or comment to the facilitator by:
  - Typing your question into the Question Panel of GoTo meeting
  - Clicking the Send button
  - Your question will appear in the Question Log



Webinar Schedule

Alternatives Analysis For e-Manifest

Data Quality and Biennial Report

System Performance Expectations

All webinars are from 1:00 – 3:00PM EDT. At the conclusion of each webinar, we will confirm the date, time, and topics for the next webinar, and then follow up with a reminder a few days before it.

Alternatives Analysis - Background

- Analysis of IT investments is required under Capital Planning and Investment Control (CPIC) Program
- CPIC is a structured, integrated approach to managing information technology (IT) investments
  - Purpose of Alternatives Analysis is to investigate minimum of three design options and not finalize a solution without evaluating alternatives
- EPA has identified alternative designs for e-Manifest that explore key questions (e.g., to what extent should manifest transactions occur in real-time within a centralized system?)
- This webinar is focused on obtaining user input on the several design alternatives now under consideration by EPA

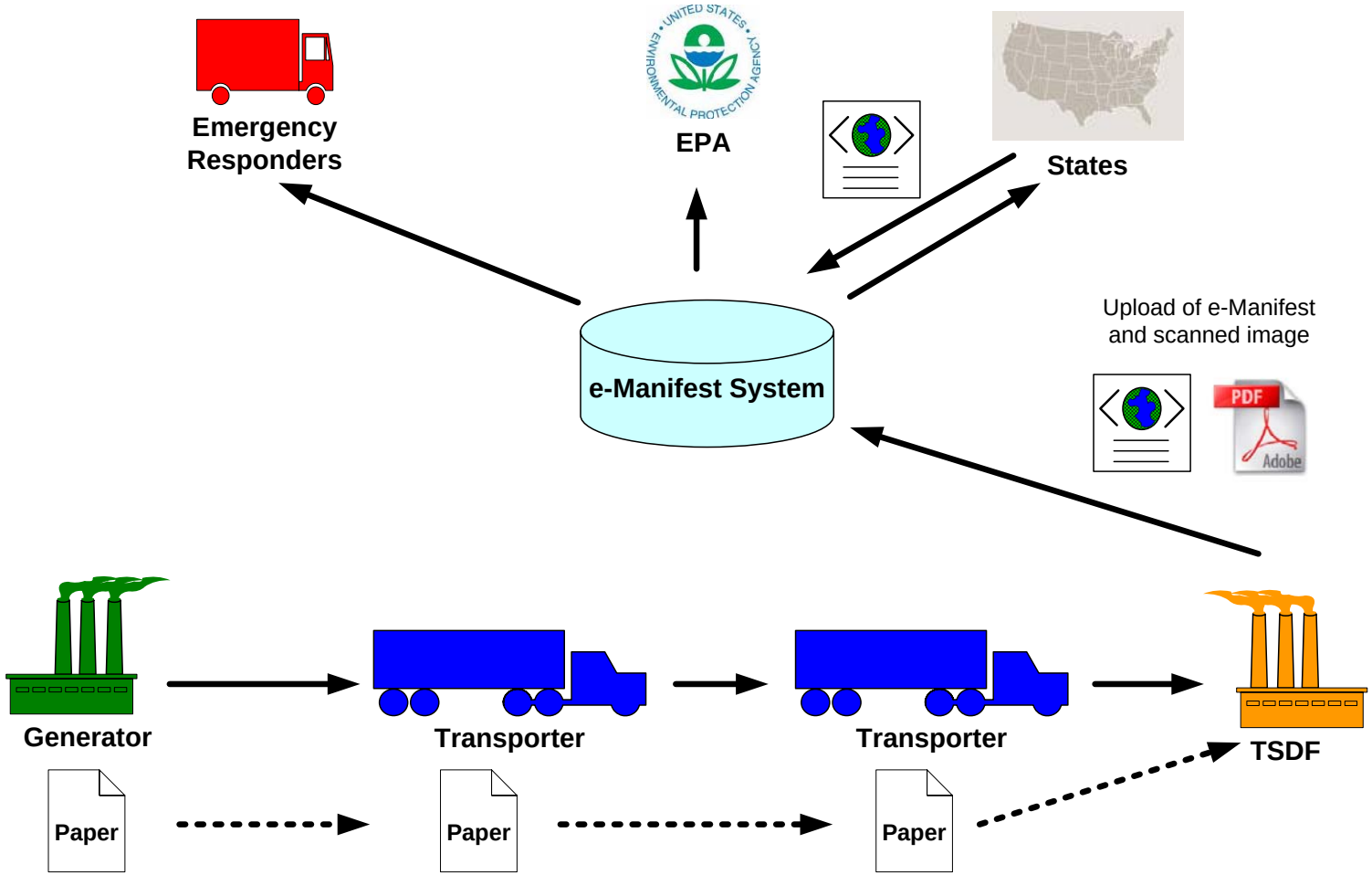
Assumptions For All Alternatives

- All alternatives assume EPA's Central Data Exchange (CDX)
- All alternatives assume defined data standards for any and all data submitted to the CDX
- All alternatives afford consistent and secure management of the manifest document work flow
- Use of the CDX for data transfer assumes that exchange network protocols are followed
- Use of CDX assumes CROMERR compliance, which affords enforceability of electronic manifest submissions
  - CROMERR applies to electronic submissions only

Overview of Alternatives

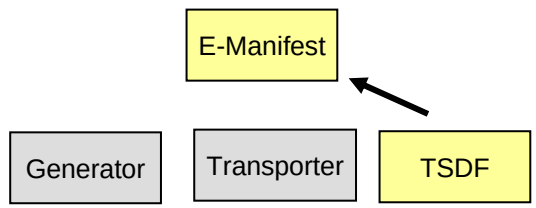
- Alternative 1 – Paper-based With TSDF Upload
  - Continue the existing paper-based manifest process
  - TSDF submits the e-manifests to EPA as XML files and scanned images
- Alternative 2 – Mobile PC With Off-line Capabilities
  - Transporters or TSDFs download draft e-manifests in batch from the central EPA system, in advance of initiating shipments from the generators' sites
  - Transporters or TSDFs load the draft e-manifests onto their own mobile devices for completion off-line at waste handler sites.
  - TSDFs submit the final e-manifests to EPA as XML files when they return to their office sites with network access.
- Alternative 3 – Fully On-line System
  - All users can register with the central EPA system to create and manage e-manifests
  - Updates, signed copies, and shipment statuses are uploaded to the central EPA system throughout waste transit

Alternative 1: Paper-Based TSDF Upload



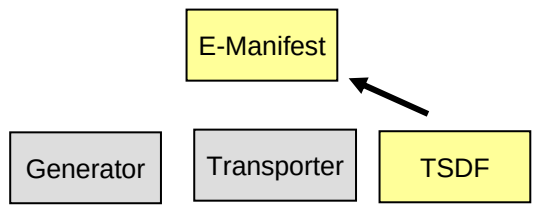
Alternative 1: Paper-Based TSDF Upload

- Retains existing paper-based transactions and handwritten signatures among the waste handlers
- Final electronic data uploaded to CDX by designated TSDF using a standard format (XML) at back end of process.
- Scanned manifest images also uploaded to CDX
- Upload of scanned paper manifest and data would complete the electronic reporting cycle
- Paper manifest copies and perhaps the scanned final copy image retained as the enforceable manifest copies
- In most basic form, this option only provides more expedient electronic reporting of data to data systems, without affecting enforcement of paper
- In more ambitious form, the upload of the final scanned image could replace some paper copies as enforceable manifest documents
  - Which paper copies might be replaced?



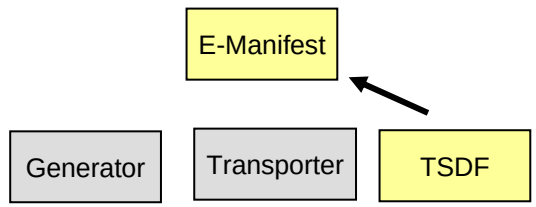
Alternative 1: Paper-Based TSDF Upload

- Feasibility
  - How feasible is this alternative and what user needs or problems should be addressed in its design or implementation?
    - Generators, Transporters
    - Designated TSDFs
    - States
    - Others (e.g., brokers)
  - How would a manifest be corrected after it is uploaded to the CDX?
  - How well would this option lend itself to integration with the Biennial Report?
  - Would this alternative improve manifest data quality and timeliness over the existing system?
  - Does the submission of the scanned image to the central system eliminate the need for:
    - sending a paper copy to generator?
    - retaining paper copy at TSDF site?
  - Might this option be desirable as an interim step in implementation of the e-Manifest?
  - What could serve as the copy of record - electronic, scanned image, hybrid, other?



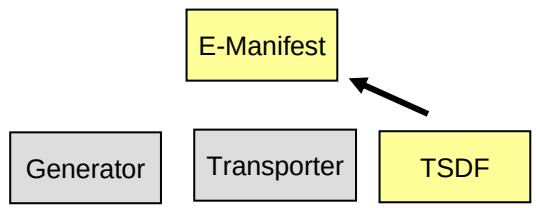
Alternative 1: Paper-Based TSDF Upload

- Burden Impacts
  - What burdens to users would be reduced and/or created in comparison with existing manifest system?
    - Generators, Transporters
    - Designated TSDFs
    - States
    - Others (e.g., brokers)
  - Does this option abandon too many of the benefits of a paperless e-Manifest?
  - Are TSDFs willing to support the scanning and/or electronic reporting burdens at the back end of the business process?
  - What CROMERR compliance burdens are avoided by this option?

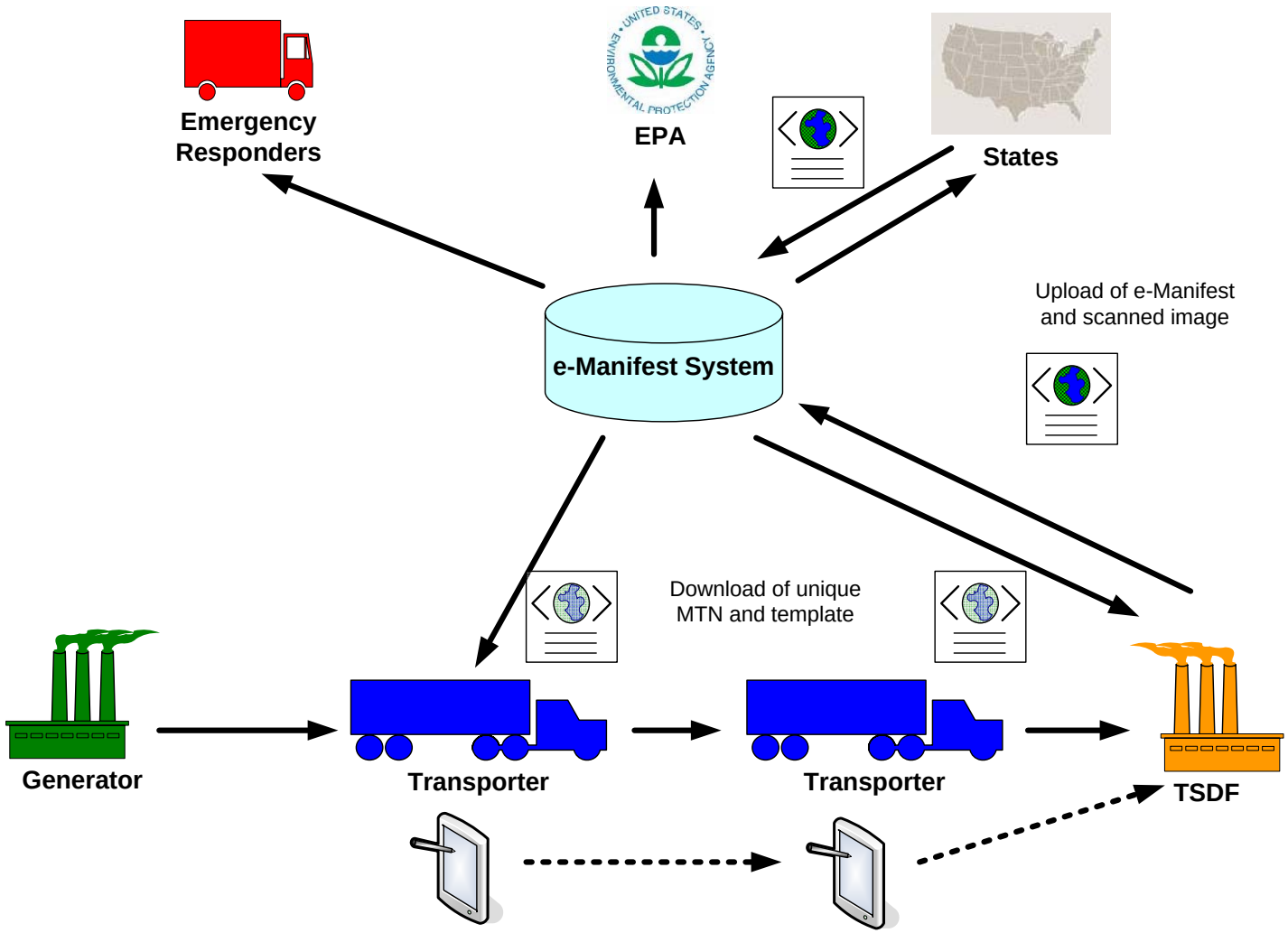


Alternative 1: Paper-Based TSDF Upload

- Burden Impacts (cont'd)
  - Would there be a net burden savings in comparison with existing system?
  - How could the burdens under this alternative be reduced further?
- New Benefits to Compliance and Enforcement
  - Does the option present new opportunities for improving compliance?
  - Does the option present new opportunities for enhanced enforcement?
- Other Comments/Input?
  - Overall, how well does this alternative address users' needs for an automated manifest system?
  - How could this alternative be improved further?
  - Should scanned TSDF copies of paper manifests and XML data be sent to the central system before shipment data are fully and finally reconciled/corrected?
    - How is this done today?

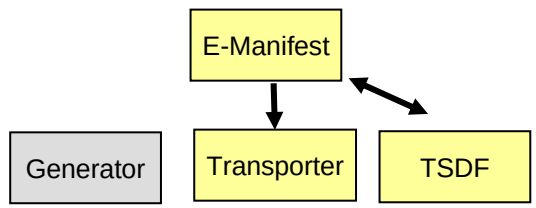


Alternative 2: Mobile PC With Off-line Capabilities



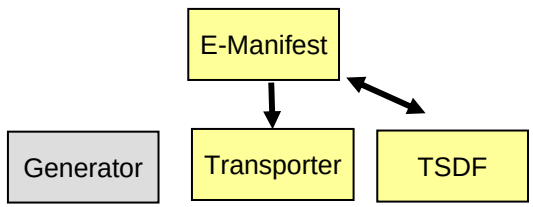
Alternative 2: Mobile PC With Off-line Capabilities

- Commercial waste handlers register and establish interface between their industry systems and EPA system
- Handlers download draft manifests from system (e.g., batch downloads) for preparation, in advance of shipment
  - Unique manifest tracking number assigned.
  - Customer profile and templates available to pre-populate manifest.
- Handlers use their own mobile devices to transact manifest (i.e., verify quantities, obtain signatures) off-line during shipment
- Manifest signed off-line with self-authenticating digitized handwritten signatures
- Designated TSDF uploads all signed copies of electronic manifest to the CDX at end of shipment
  - No required transactions with central system while waste in transit
- EPA central system tracks all copies of the electronic manifest, processes waste receipt and discrepancy information and retains copies of record



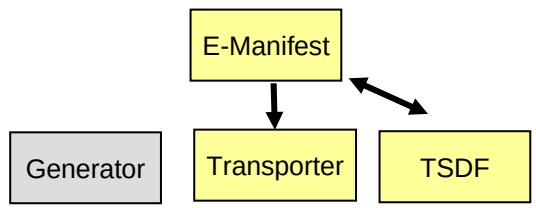
Alternative 2: Mobile PC With Off-line Capabilities

- Feasibility
  - How feasible is this alternative and what user needs or problems should be addressed in its design or implementation?
    - Generators
    - Transporters
    - Designated TSDFs
    - States
    - Others (e.g., brokers)
  - Should this alternative limit draft manifest downloads to “commercial” waste handlers only?
  - What challenges are posed by the off-line nature of manifest transactions in the field?
  - Does this option frustrate significantly the goal of supporting real-time tracking?
    - Option does support tracking of 3 statuses: draft/in transit, received, and accepted.



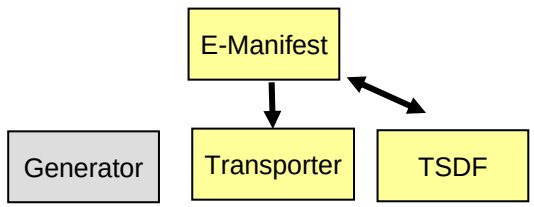
Alternative 2: Mobile PC With Off-line Capabilities

- Feasibility
  - Is it feasible to require the transaction of manifests via portable devices instead of a centralized system (e.g., would commercial users be willing to purchase and/or upgrade their own devices)?
  - Are self-authenticating digitized handwritten signatures a feasible signature option?
  - Would this alternative substantially improve manifest data quality and timeliness over the existing paper system?
  - How well would this option lend itself to integration with the Biennial Report?



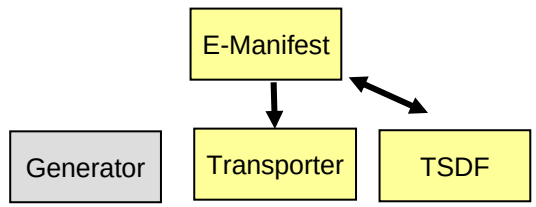
Alternative 2: Mobile PC With Off-line Capabilities

- Burden Impacts
  - What burdens to users would be reduced and/or created in comparison with existing manifest system?
    - Generators, Transporters
    - Designated TSDFs
    - States
    - Others (e.g., brokers)
    - Potential costs
      - TSDF interfaces with central system
      - Mobile devices
  - Would there be a net burden savings in comparison with existing system?
  - How could the burden under this alternative be reduced further?

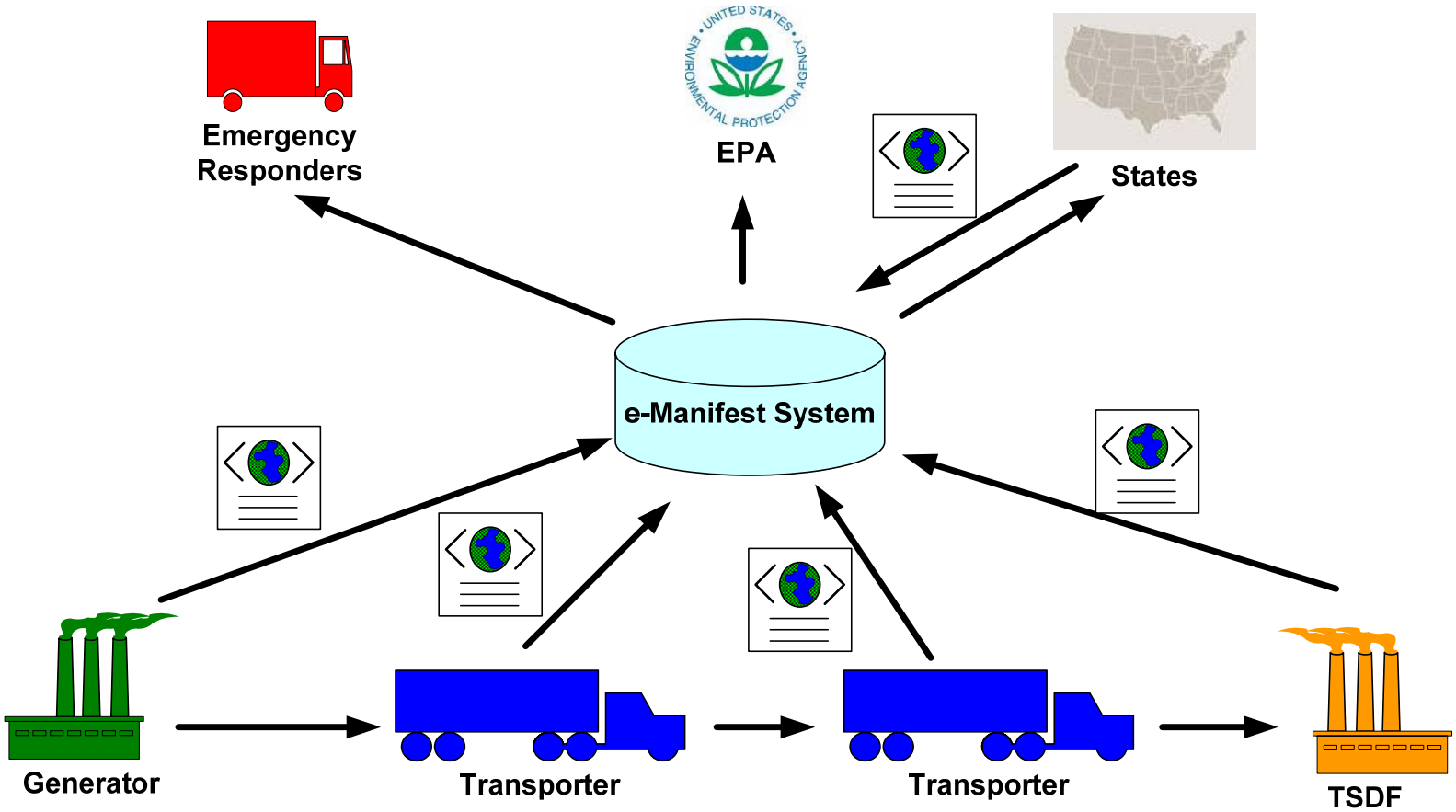


Alternative 2: Mobile PC With Off-line Capabilities

- New Benefits to Compliance and Enforcement
  - Does the option present new opportunities for improving compliance?
  - Does the option present new opportunities for enhanced enforcement?
- Other Comments/Input?
  - Overall, how well does this alternative address users' needs for an automated manifest system?
  - How well does this option balance incremental costs and enhanced benefits?
  - How could this alternative be improved further?

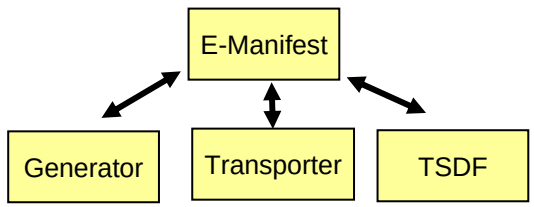


Alternative 3: Fully On-line System



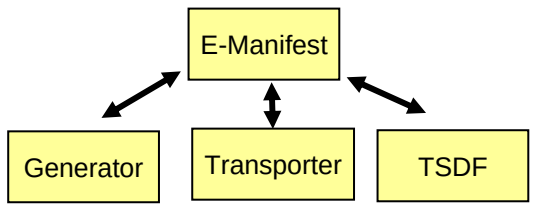
Alternative 3: Fully On-line System

- All users register to interface with EPA's central system
- Manifest transactions and complete workflow conducted and managed directly within the central EPA system
  - Managed centrally from initial creation of draft manifest through submission of final "accepted" manifest data to system
- Shipment statuses tracked and available on real-time basis
- Electronic manifests can be created via:
  - Central system web site.
  - Uploads from industry system to central system individually or in batches
- User computer systems and/or portable devices can be used to transact manifest during shipment
- Paper manifest used when network access not available
- Most similar to the pilot system approach



Alternative 3: Fully On-line System

- Feasibility
  - How feasible is this alternative and what user needs or problems should be addressed in its design or implementation?
    - Generators
    - Transporters
    - Designated TSDFs
    - States
    - Others (e.g., brokers)
  - Should industry uploads be allowed at multiple points during shipment?
  - Would this alternative substantially improve manifest data quality and timeliness over the existing system?
  - How well would this option lend itself to integration with the Biennial Report?
  - How feasible is real time network access at all manifesting locations?
  - How feasible is 24/7 system reliability?



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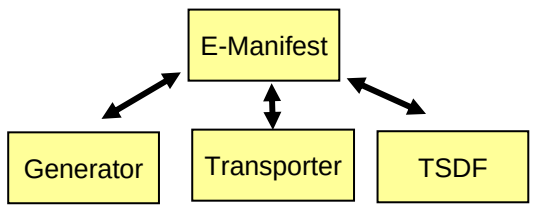
      - Industry interfaces with central system
      - Mobile devices



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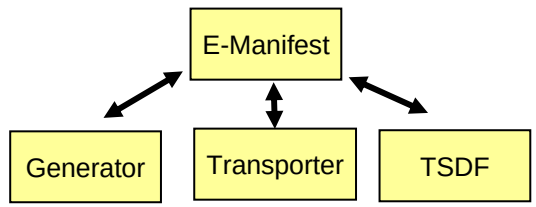

Comparison of Alternatives

- Overall, which alternative is the most desirable and why? Please consider the following criteria in your response:
  - Feasibility
  - Manifest data quality and timeliness
  - Burden reduction
  - Potential for enhanced shipment tracking capabilities
  - Balancing of incremental cost with enhanced benefits
  - Integration with Biennial Report
  - Potential for improved accountability and oversight
  - Other key user needs

Next Webinar

- Will be held on June 9, 2009, from 1:00 to 3:00 PM EDT
- Topics: Manifest Data Quality and e-Manifest Integration with the Biennial Report
- A reminder will be e-mailed to you